REMARKS

New claims 22 through 26 have been introduced in the application. Claims 1-26 remain in the application, although claims 5-15 and 19-21 stand withdrawn from consideration.

Applicants respectfully request that the rejection of the claims presented be reconsidered and withdrawn in light of the amendments above and the discussion which follows and that the application be found in condition for immediate allowance.

Apparent Inconsistency in Parenthetical Terms

Applicants would first like to point out what appears to be an inconsistency. Throughout the Examiner's application of the reference, the Examiner has read the switch of Applicants claim onto "unit 1" and "unit VCC" of the reference interchangeably. For example, compare the last line of page 2 of paper No. 20040430 (the Official Action mailed May 10, 2004) ". . . a switch (unit 1)," to the fourth-from-last line on the same page ". . . the switch (unit VCC)." This specific inconsistency is relative to claim 1. A similar inconsistency appears in the Examiner's application of claim 17 on page 3.

Applicants believe the Examiner intended to consistently apply "unit 1" to the switch of Applicants claim rather than "unit VCC." To the best of Applicants understanding, the Examiner's usage of the term "unit VCC" can apply to either the VCC pin on connector 6, or to the electrical node or conductor on the cathode side of diodes 5 and 4 of the reference. Neither the VCC pin on connector 6 nor the node on the cathode side of diodes 5 and 4 can reasonably be construed to be a switch of the type required. On the other hand, unit 1 is an SRAM unit which can at least be construed to be a switch since SRAMs have switching components therein. Please note that this statement does not represent an admission on Applicants part that unit 1, an SRAM, is properly read as a switch of the type required in Applicants claim for the reasons which will be clearly made in Applicants arguments in response to the Examiner's rejection.

Thus, throughout this paper, Applicants assume the Examiner meant to read the switch as "unit 1."

The 35 U.S.C. § 102 Rejections

It is Applicants understanding that a rejection on the basis of anticipation under 35 USC 102 is appropriate where each element of claim at issue is found in a single prior art reference. See *Kalman vs. Kimberly-Clark Corp.*, 218 U.S.P.Q 781 at 789, (Federal Circuit 1983). The requirement is for an element by element comparison of the recited structure, function, and operative steps with what is found in the reference sought to be applied. The rejection is proper where such an element by element comparison finds identity for each element within the four corners of the reference.

It is respectfully submitted to the rejection made in the official action falls short of this standard. Further, it is respectfully submitted that no rejection can be framed on the basis of the reference cited which will support a refusal to allow the claims as presented, without regard for whether that possible rejection is grounded on anticipation under 35 USC 102 or obviousness under 35 USC 103.

Claim 1

As stated above in the introductory comments, it appears that the Examiner is reading the switch of Applicants claim onto the SRAM unit 1 of Mizuno. Firstly, SRAM unit 1 is not a switch of the type required but is rather a Static Random Access Memory. Persons of ordinary skill in the art are aware that SRAMs do not function as switches. Applicants understand that the Examiner is to give to the claims the broadest reasonable interpretation. However, claim terminology must be construed in light of the specification. For example, implicit in the switching of high-capacity capacitors, as stated in the specification, are the large power-level transient currents supplied by high-capacity capacitors. In that context a switch of the type claimed, Applicants submit, excludes a memory device of the SRAM type. Thus, since an SRAM does not meet the

requirement of a switch, the claim does not read on the Mizuno reference and therefore the Mizuno reference does not anticipate Applicants claim. For at least this reason, claim 1 is believed to be patentable and Applicants request that this claim be passed to allowance.

Even if the argument presented in the above paragraph is found to be unpersuasive, Applicants present the following further arguments for patentability.

It is respectfully submitted that the Mizuno reference actually fails to disclose or suggest at least the following bold highlighted expressly recited limitations which are missing in the Mizuno reference and therefore disqualify the corresponding elements applied by the Examiner. *In re Royka,* 490 F.2d 981,180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson,* 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

> 1. Apparatus comprising:
>
> a body which consumes power;
>
> a battery which supplies power to the body through a power line by discharging after being charged;
>
> a high-capacity capacitor connected to the power line in parallel with the battery;
>
> a switch **for disconnecting or connecting the high-capacity capacitor from or to the power line by a circuit; and**
>
> a controller **for controlling operations of the switch.**

Specifically, a switch of the type called out in the claim must be able to **disconnect the high-capacity capacitor from the power line.** Even if the SRAM unit 1 were a switch, which Applicants maintain it is not, SRAM unit 1 is not schematically coupled in a proper manner in order to be able to disconnect the high-capacity capacitor from the

power line. Let's examine this a bit further. If SRAM unit 1 in Mizuno were in an open switch state, it removes itself from the circuit and high-capacity capacitor 2 remains connected to the power line. If SRAM unit 1 in Mizuno were in a closed switch state, it also does *not* disconnect the high-capacity capacitor 2 from the power line, and in fact shorts out the entire circuit which defeats the purpose Mizuno is trying to achieve. In any case, a switch can only disconnect something in its open state. SRAM unit 1 is connected between the power line and ground and therefore can only disconnect the power line from ground and nothing else. For these reasons, SRAM unit 1 of Mizuno cannot be properly read as the switch expressly recited in applicants claim with its corresponding limitations. The element by element identity of structure and function necessary for a supportable anticipation rejection are absent not only from the Examiner's arguments by also from the reference.

Should the Examiner disagree, it is respectfully requested that the Examiner provide specific pointers to the location in the reference of a teaching of **disconnecting** high-capacity capacitor 2 of Mizuno **from the power line by a circuit**. Applicants believe this would be an impossible task for the Examiner since high-capacity capacitor 2 appears to be directly connected to between ground and the power line.

Further, the claim language expressly requires that a controller be able to **control the operations of the switch**. However, these operations are not just any operations. They are operations which have expressly been set forth in the prior element as operations which control the switch for disconnecting or connecting the high-capacity capacitor from or to the power line. There is no disclosure in Mizuno for a controller that meets this limitation because, as established earlier, the function of disconnecting high-capacity capacitor 2 of Mizuno is absent. Therefore, there can be no controller that performs this function. For these reasons, controller 8 of Mizuno cannot be properly read as the controller expressly recited in applicants claim with its corresponding limitations. The element by element identity of structure coupled with the function expressly recited for that structure which is necessary for a supportable

anticipation rejection are absent from the reference and from the Examiner's arguments.

Should the Examiner disagree, it is respectfully requested that the Examiner provide specific pointers to the location in the reference of a teaching of controlling the operations of a switch such that the switch acts to disconnect or connect a high-capacity capacitor from or to the power line.

Even if one were to take a more liberal view that the Mizuno patent might be a reference for an obviousness rejection, support necessary for such a rejection is absent from the official action and the reference. Indeed, it is believed that an obviousness rejection cannot be made based on the Mizuno reference alone simply because, the Mizuno reference fails to find identity with each and every element and limitation expressly recited in Applicants claim.

No such attempt is made in the official action. Indeed, it is the position of Applicants that no such attempt can succeed and that recognition of that failing in the prior art has resulted in the absence of any obviousness rejection from the Examiner's argument. It is submitted that this is tantamount to recognition and admission of a patentable invention as defined in claim 1.

For the reasons given above, it is the position of Applicants that Claim 1 defines an invention which is patentably distinct from the reference cited under the tests of both 35 U.S.C. 102 and 35 U.S.C. 103. Should the Examiner conclude otherwise, it is respectfully requested that the Examiner's arguments be clarified in any next following Official Action in order that Applicants may more clearly understand the element by element identification (if the rejection is under 35 USC 102) and/or the teaching which suggests obviousness of any combination of references (if the rejection is under 35 USC 103).

Claim 2

Turning now to Claim 2, that claim is a dependent claim which adds to the recitations of Claim 1 the further patentable distinction that the switch disconnects the high-capacity capacitor when the battery is disconnected from the body. It is respectfully submitted that the reference applied fails to in any way teach or suggest the use of disconnecting the high-capacity capacitor when the battery is disconnected. This requirement is set forth in the following bold highlighted portions of claim 2.

> 2. Apparatus according to claim 1, wherein the controller controls operations of the switch to disconnect the high-capacity capacitor by a circuit **when the battery is disconnected from the body**.

In fact, Mizuno teaches the opposite: Mizuno teaches the placement (that is conductivity not dis-conductivity) of high-capacity capacitor 2 in the absence of battery 3 in order to provide power in lieu of battery 3. Disconnecting high-capacity capacitor 2 when the battery 3 is disconnected would cause the IC card of Mizuno to fail. Claim 2 is further believed to be patentable for these reasons.

Should the Examiner disagree, it is respectfully requested that the Examiner provide specific pointers to the location in the references of a teaching of the use of disconnecting a high-capacity capacitor when the battery is disconnected.

Claim 3

Turning now to Claim 3, that claim is a dependent claim which adds to the recitations of Claim 1 the further patentable distinction that the switch disconnects the high-capacity capacitor when the body is powered off and/or the body is kept in a small-power-consumption mode.. It is respectfully submitted that the reference applied fails to in any way teach or suggest the use of disconnecting the high-capacity capacitor when the body is powered off and/or the body is kept in a small-power-consumption mode. This requirement is set forth in the following bold highlighted portions of claim 3.

3. Apparatus according to claim 1, wherein the controller controls operations of the switch to disconnect the high-capacity capacitor by a circuit **when the body is powered off and/or the body is kept in a small-power-consumption mode.**

From the English abstract alone, it would appear to be incontrovertible that Mizuno fails to disclose any sort of power off mode, much less a small-power-consumption mode which consumes less power than a normal-power-consumption mode. For example the entire Mizuno circuit is shown in figure 1 and there is no on-off switch. Even if unplugged, the IC card of Mizuno remains powered. Claim 3 is further believed to be patentable for at least these reasons.

Should the Examiner disagree, it is respectfully requested that the Examiner provide specific pointers to the location in the references of a teaching of disconnecting a high-capacity capacitor when the body is powered off and/or the body is kept in a small-power-consumption mode.

Claim 4

With respect to claim 4, this claim is believed to be in condition for immediate allowance due to its dependence on independent claim 1 which is believed to be allowable.

Claim 16

Turning now to claim 16, this claim is an independent subcombination claim reciting the patentable feature that a high-capacity capacitor be conditionally connected to a power line. This requirement is expressly set forth in Applicant's claim 16 by the following limitations which have been highlighted in bold:

16. An intelligent battery set to an electrical apparatus to supply power to the electrical apparatus by discharging after being charged, comprising:

a cell for supplying power through a predetermined power line; and

a high-capacity capacitor connected to the power line in parallel with the cell **under a predetermined condition**.

Contradistinctively, in Mizuno, high-capacity capacitor 2 appears to be directly connected, as in soldered, between VCC and ground and therefore cannot be conditionally connected. Mizuno, therefore, cannot be the type of reference to meet the above cited criteria requiring the element by element identity of structure and function necessary for a supportable anticipation rejection. Nor can a proper 35 U.S.C. § 103 obviousness rejection be based on Mizuno since Mizuno fails to include all of the elements and limitations of Applicant's claim. For these reasons, claim 16 is believed to be patentable in view of Mizuno and in condition for immediate allowance.

Should the Examiner conclude otherwise, it is respectfully requested that the Examiner's arguments be clarified in any next following Official Action in order that Applicants may more clearly understand the element by element identification (if the rejection is under 35 USC 102) and/or the teaching which suggests obviousness of any combination of references (if the rejection is under 35 USC 103).

Claim 17

Claim 17 is believed to be patentable due to its dependence on independent claim 16 which is believed to be patentable for the reasons given above. Additionally, claim 17 is believed to be patentable due to the expressly recited limitations which have already been argued above with respect to claim 1. Those limitations being

disconnecting a high-capacity capacitor from a power line and **controlling the operations of the switch**. Applicants hereby incorporate those arguments made relative to claim 1 by reference herein as they apply to claim 17. Whereas, in claim 1 the Examiner argued that it was controller 8 controlling SRAM unit 1 and not the CPU. Here, the Examiner is arguing that the CPU is controlling Mizuno's SRAM unit 1. Applicants hereby submit that neither controller 8 nor SRAM unit 1 can control the operations of the "switch" because the "switch" is not performing the required function of disconnecting the high-capacity capacitor from the power line.

Claim 18

Allowable Subject Matter

Claim 18 has been objected to as dependent upon a rejected based claim, but would be allowable if the written in independent form including all of limitations of the base claim and any intervening claims. Since Applicants believe that independent claim 16 is in condition for allowance, Applicants have not amended claim 18. Rather, Applicants have introduced new claim 22 which is actually claim 18 written in independent form. Thus, claim 22 is believed to be in condition for immediate allowance.

Newly Introduced Claims

Claims 22-26 have been newly introduced in the present application. Of which, claim 22 conforms to the Examiner's objection and is believed to be in allowable condition.

Request to Proceed to Allowance

For each and all of the reasons set forth above, and as Applicants believe each and all of Examiner's rejections and or objections have been traversed or rendered moot, Applicants respectfully request that this response be considered, entered, and a timely notice of allowance be issued.

The Examiner is urged to call the undersigned at the below-listed telephone number if, in the Examiner's opinion, such a phone conference would expedite or aid in the prosecution of this application.

Respectfully Submitted,

Carlos Munoz-Bustamante
Reg. No. 51,349

Customer No. 25299
IBM Corporation
Dept 9CCA/002
P. O. Box 12195
Research Triangle Park, NC 27709

(919)254-2587
FAX: 919-254-2649
EMAIL: cbustama@us.ibm.com